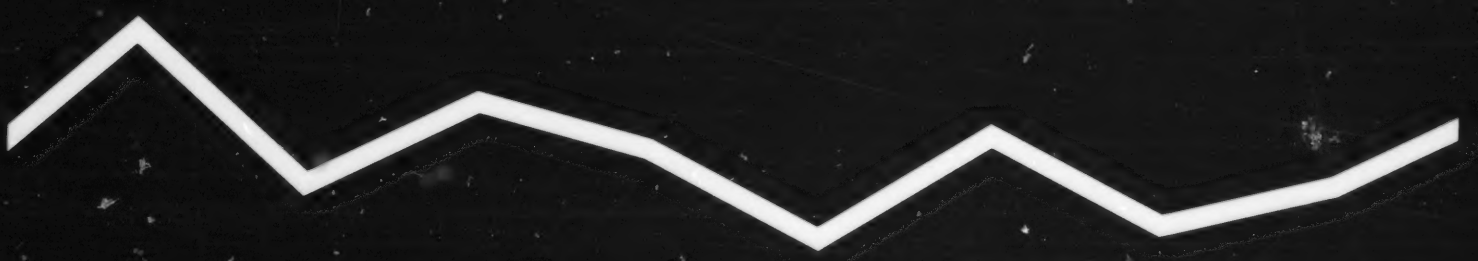
GASOLINE CONSUMERS' INFORMATION COMMITTEE



GASOLINE MARKETING IN ALBERTA

Report of the Gasoline Consumers' Information Committee

December 1990

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For additional copies of this report please write to:

GASOLINE CONSUMERS' INFORMATION COMMITTEE
P.O. Box 1811, Main Post Office
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Foreword

The increase in gasoline prices since the onset of the Persian Gulf Crisis at the beginning of August has caused consumers to ask a number of questions about how gasoline is marketed in Alberta, and whether these increases are fair and reasonable.

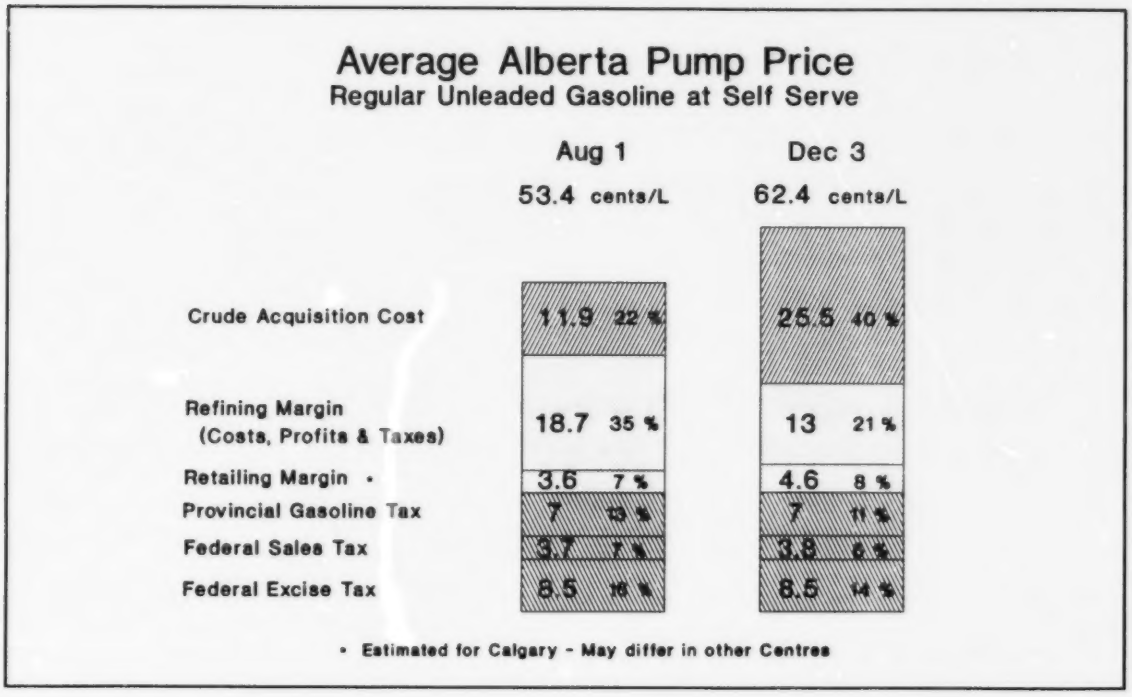
Consumer and industry groups were asked by Alberta Energy Minister Rick Orman and Alberta Consumer and Corporate Affairs Minister Dennis Anderson to form a committee to look into these questions. The Gasoline Consumers' Information Committee was struck to gather and disseminate information that would help consumers better understand how gasoline is marketed in Alberta, and to assist them in making informed purchasing decisions.

The committee comprises representatives of the Alberta Motor Association, the Consumers' Association of Canada (Alberta Branch), and the Petroleum Resources Communication Foundation. In weekly meetings since October, the committee has heard presentations by representatives from large and small gasoline refiners and marketers operating in Alberta. Its work has been assisted by staff from the departments of Energy and Consumer and Corporate Affairs.

The committee's first task was to publicize a weekly survey of gasoline prices for nine Alberta communities. This information provides consumers with an indication of the range of prices that are available in these communities. A summary of the weekly surveys is included in the Appendix to this report. The committee intends to continue publicizing these surveys as long as the situation in the Persian Gulf is unresolved, and the possibility of major price fluctuations remains.

In the pages that follow, information gathered by the committee over the past weeks has been used to answer questions most frequently asked by consumers about gasoline marketing in Alberta.

Many of the questions are about the components that make up the price of gasoline and how they have changed since the beginning of August. As shown in the figure below, the main difference is that the cost of acquiring crude is now substantially higher. Average gasoline prices are also higher, but the increase has been less than the increase in the cost of crude.



The committee welcomes comments or additional questions. Please write to:

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P.O. Box 1811, Main Post Office
Edmonton, Alberta T5J 2P2

Committee Members:

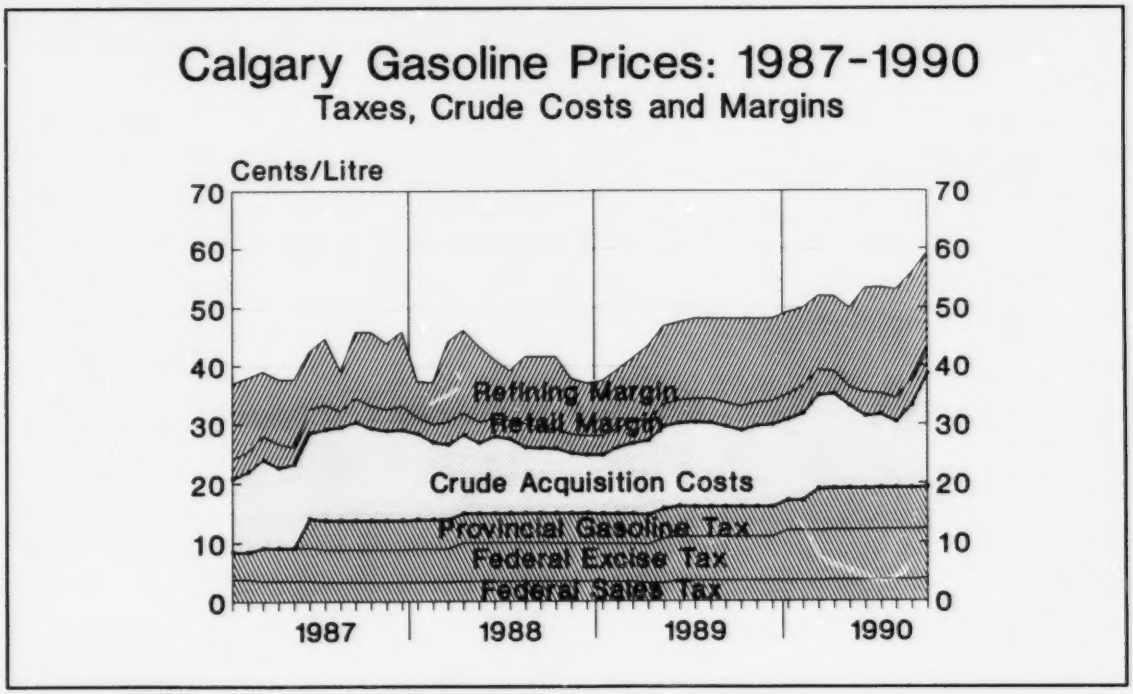
Terry Bocock (Chairman)	Alberta Motor Association
Lynne Arling	Consumers' Association of Canada (Alberta Branch)
Dave Barr	Alberta Motor Association
Bob Buchanan	Petroleum Resources Communication Foundation
Corinne van der Linden	Consumers' Association of Canada (Alberta Branch)

Question 1 **Where does my gasoline dollar go?**

There are three main components that make up the cost of gasoline:

Federal and Provincial Gasoline Taxes
Crude Acquisition Costs
Refining and Retailing Margins

The figure below provides a breakdown of these components for Calgary since the beginning of 1987. Generally, the data are similar for other centres in Alberta.



Federal and Provincial Gasoline Taxes

The federal government levies an excise tax of 8.5 cents per litre and a sales tax of 3.8 cents per litre of gasoline.

The excise tax is adjusted periodically, and was last increased by 1 cent per litre January 1, 1990.

Currently, the sales tax is adjusted quarterly and is derived from applying the Federal Sales Tax to an index of past wholesale gasoline prices. The sales tax component is scheduled to be replaced by the GST in the new year.

The Alberta Government collects a gasoline tax of 7 cents per litre. This tax was introduced in June of 1987 at a rate of 5 cents per litre, and was increased to the present rate in March of 1990.

Crude Acquisition Costs

Crude oil is the main raw material used to make gasoline.

Since Canadian oil markets were deregulated in June 1985, Canadian oil consumers and producers have bought and sold oil at world prices. Changes in world oil prices are quickly reflected in the price Alberta refiners must pay for crude oil.

This year for example, world oil prices (at Edmonton) slumped from over 16 cents per litre at the beginning of the year to under 12 cents per litre this summer. Since the beginning of the Persian Gulf Crisis, world oil prices have doubled, averaging over 25.5 cents per litre in October and 23.1 cents per litre in November.

In the past, it has taken just over a month for changes in crude oil prices to be reflected in gasoline prices in Alberta.

Refining and Retailing Margins

These margins reflect the portion of the gasoline dollar that goes to cover the other costs of refining, distributing and marketing gasoline, including profits and income taxes.

In some cases, the retailer buys gasoline from the refiner and can set his or her own price and margin. In others, the refiner retains ownership of the gasoline and sets the retail price.

As shown in the figure on page 3, the refining margins have varied quite substantially over the past four years. They also vary from community to community across the province.

In Calgary, the retailing margin has varied between 3 and 4.5 cents per litre. This margin will vary across the province, and may be higher in remote areas and in markets where the sales volume per station is small.

Refining and retailing margins are directly affected by competitive forces. During a price war, for example, margins are reduced as refiners and retailers cut prices in order to gain or maintain a share of sales in a particular market.

Similarly, competitive forces may prevent refiners from passing the full extent of a cost increase on to consumers, with the result that margins fall.

It is important to note that with the exception of Nova Scotia and PEI, gasoline prices are not regulated in Canada. Prices are determined by competitive forces in local and regional markets. While refiners and retailers may not engage in anti-competitive pricing practices, there are no other restrictions on how they set prices or how quickly they reflect cost changes. Rather, they are constrained by competitive market forces.

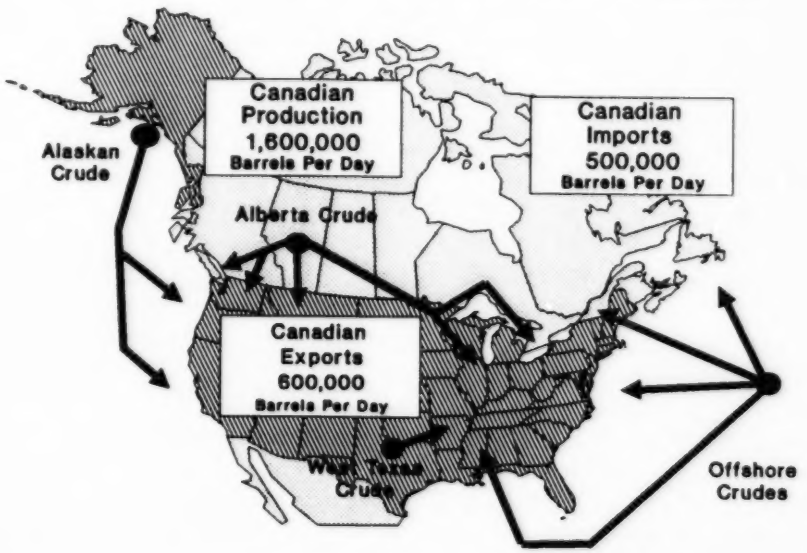
Question 2	**Why do Albertans pay world oil prices when crude is produced right here in the Province? Is Canada not self sufficient?**

Prior to 1985, during the days of the National Energy Program, Canadian consumers and producers bought and sold oil at prices that were held below world levels. It has been argued that this reduced the incentives for producers to look for oil and for consumers to conserve oil. As a result, Canada grew less competitive than other economies that quickly adjusted to changes in world energy prices.

Since 1985, Canadian oil producers and consumers have freely bought and sold oil at world prices. Refiners in Eastern Canada find it cheaper to import oil from overseas. Producers in Western Canada export oil to the United States. This is an especially important outlet for our heavier oils, as Canadian refineries are not currently designed to process heavy oil to any significant extent.

The figure below shows how Canadian imports and exports of crude oil fit into the overall North American oil market.

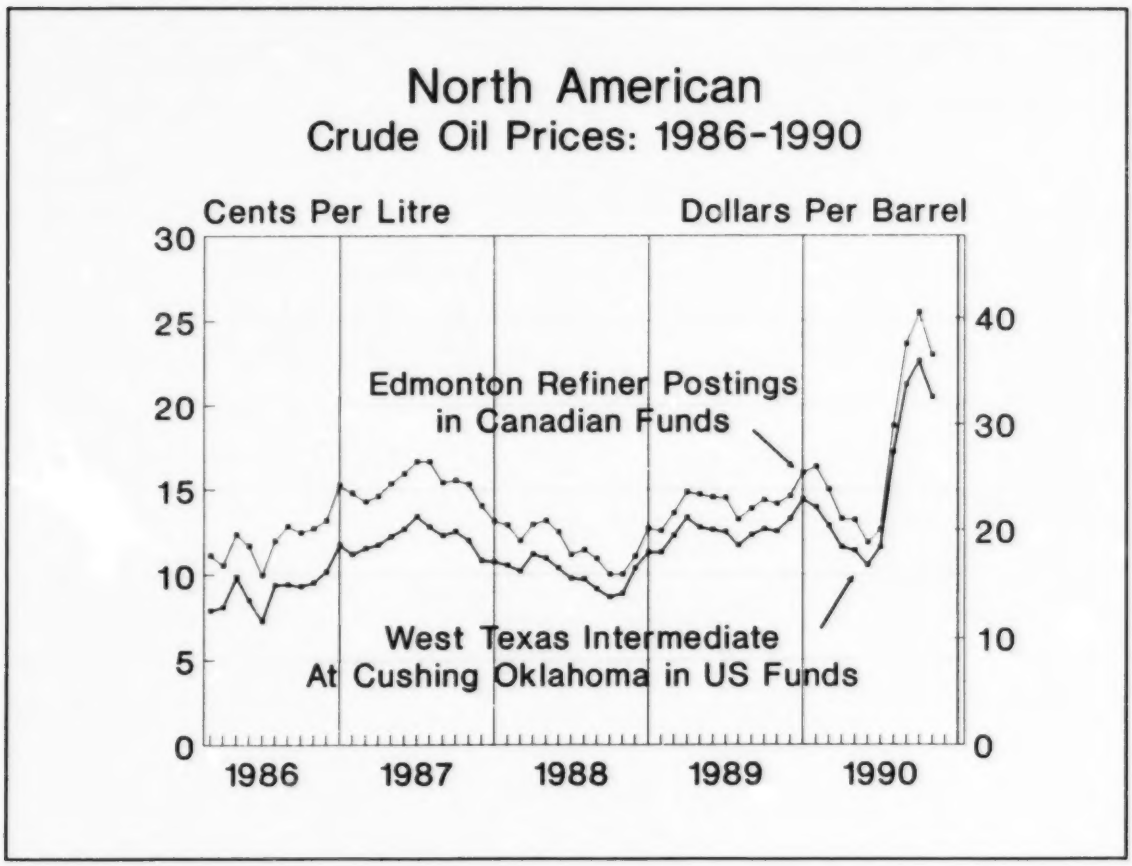
North American Crude Oil Trading Patterns



Thus, while Canada produces slightly more oil than it consumes, we depend heavily on our ability to trade on world oil markets.

Our close ties to the world oil market mean that changes in world oil prices are quickly reflected in the prices received by producers and paid by refiners throughout Canada. Alberta refiners are no exception as they must also offer world prices to ensure an uninterrupted supply.

As shown in the figure below, the prices paid by the Edmonton area refiners closely follow movements in the world bench mark crude, *West Texas Intermediate* (WTI). The only significant difference between these two lines is that the *Edmonton Refiner Postings* are quoted in Canadian funds, while WTI is quoted in U.S. funds.



The upper line is the cost of crude used to make gasoline in Alberta.

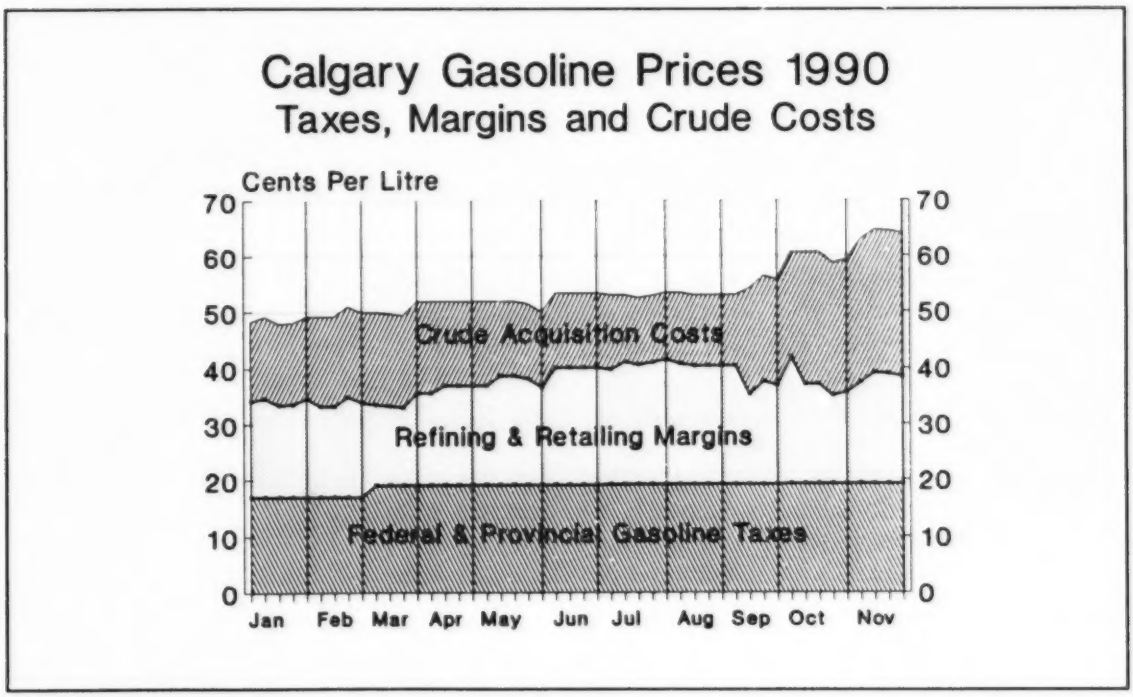
Notice that the cost of crude at Edmonton slumped from about 16 cents per litre at the beginning of 1990 to less than 12 cents per litre by mid-summer. Since the onset of the Gulf Crisis, crude costs have more than doubled, averaging 25.5 cents per in October and 23.1 cents per litre in November.

Question 3 **When crude oil prices change, how long does it take before pump prices can be expected to change? Has the increase in gasoline prices been consistent with the increase in crude costs?**

In Alberta, it has recently taken slightly over a month for crude oil to work its way through to the gasoline pump. Thus, increases in world crude prices since the start of the Gulf Crisis in August began to show up at the pumps by mid-September.

It is important to note that refiners and retailers in Alberta are under no legal obligation as to how quickly they should attempt to recover changes in crude costs through changes in gasoline prices. Like most other commodities, their ability to pass along cost increases is limited by competitive market forces.

The figure below shows weekly gasoline prices for Calgary since the beginning of 1990.



The crude cost component reflects the rate at which increases in world crude prices are expected to work their way through to the gasoline pump.

Notice that the refining and retailing margins began to decline by mid-September as the higher-cost crude had begun to work its way through to the pumps. The fact that margins have declined since the beginning of August indicates that refiners have been unable to pass the full increase in the cost of crude on to consumers.

Question 4	How do gasoline prices in Alberta compare with those in other provinces?

Gasoline prices vary substantially from province to province. While a significant portion of these differences arise from provincial gasoline taxes, they may also be due to differences in crude costs, and refining and retail margins.

Provincial Gasoline Taxes

In October, the provincial gasoline taxes in cents per litre were as follows:

Quebec	14.4	Nova Scotia	10.7 *
Newfoundland	12.4 *	Saskatchewan	10.0
Ontario	11.3	British Columbia	9.9 *
PEI	11.3 *	Manitoba	9.0
New Brunswick	11.2 *	Alberta	7.0

* In these provinces, the gasoline tax is indexed to the price of gasoline. In the remaining provinces, the gasoline tax is adjusted periodically.

Vancouver area residents pay an additional transit tax of 3 cents per litre.

Cost of Crude Oil

On average, crude oil costs slightly more in British Columbia, Saskatchewan and Ontario than it does in Alberta. This reflects the additional pipeline charges for shipping Alberta crude to these markets. Roughly speaking it costs about a third of a cent to ship a litre of oil across the prairies, and just over three quarters of a cent to ship the same volume to Vancouver or Toronto.

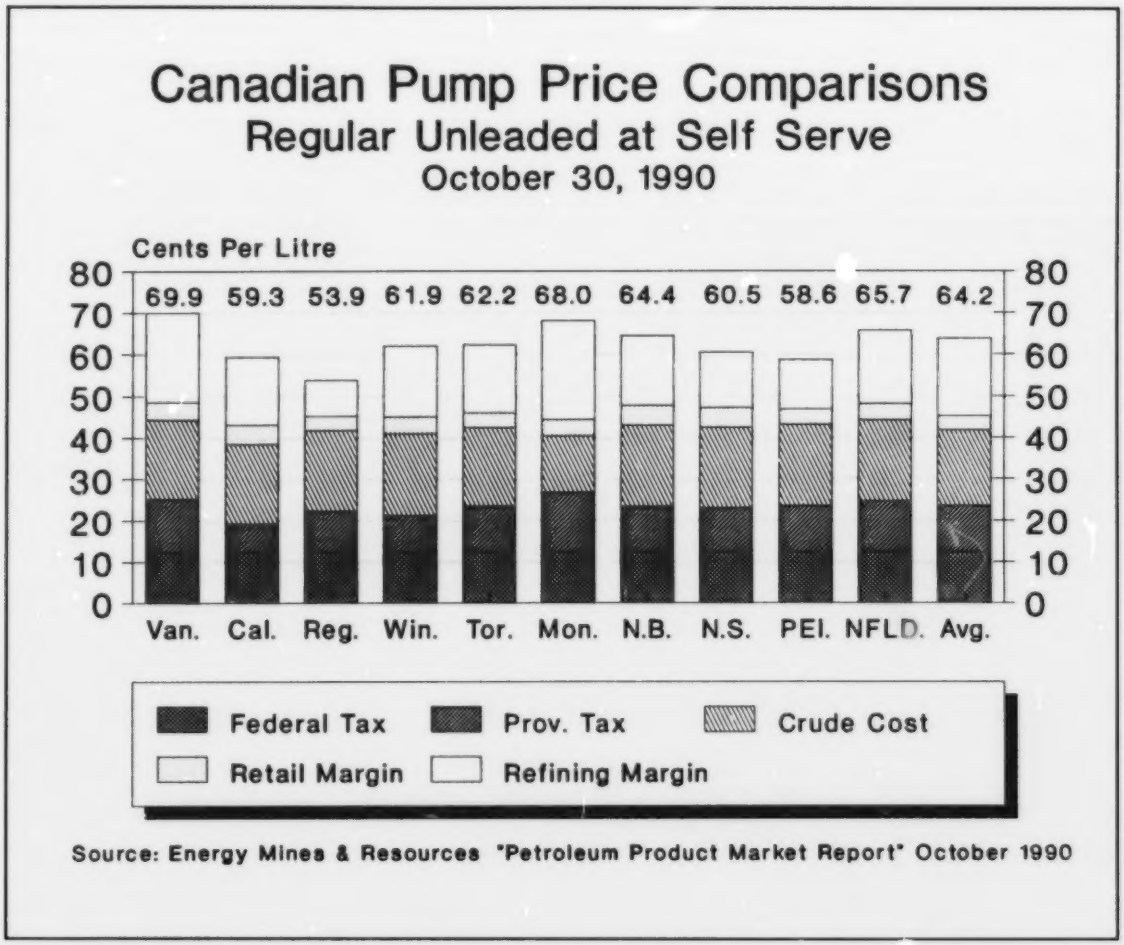
When crude oil prices are changing, however, crude costs will be affected more quickly in Alberta than in more distant markets. On average, it takes about 25 days for Alberta crude to reach Ontario refiners in the Sarnia area.

Refining and Retailing Margins

These margins vary over time and from market to market. They may be higher in markets where the sales volume per station is small, and in markets that are far from a refinery.

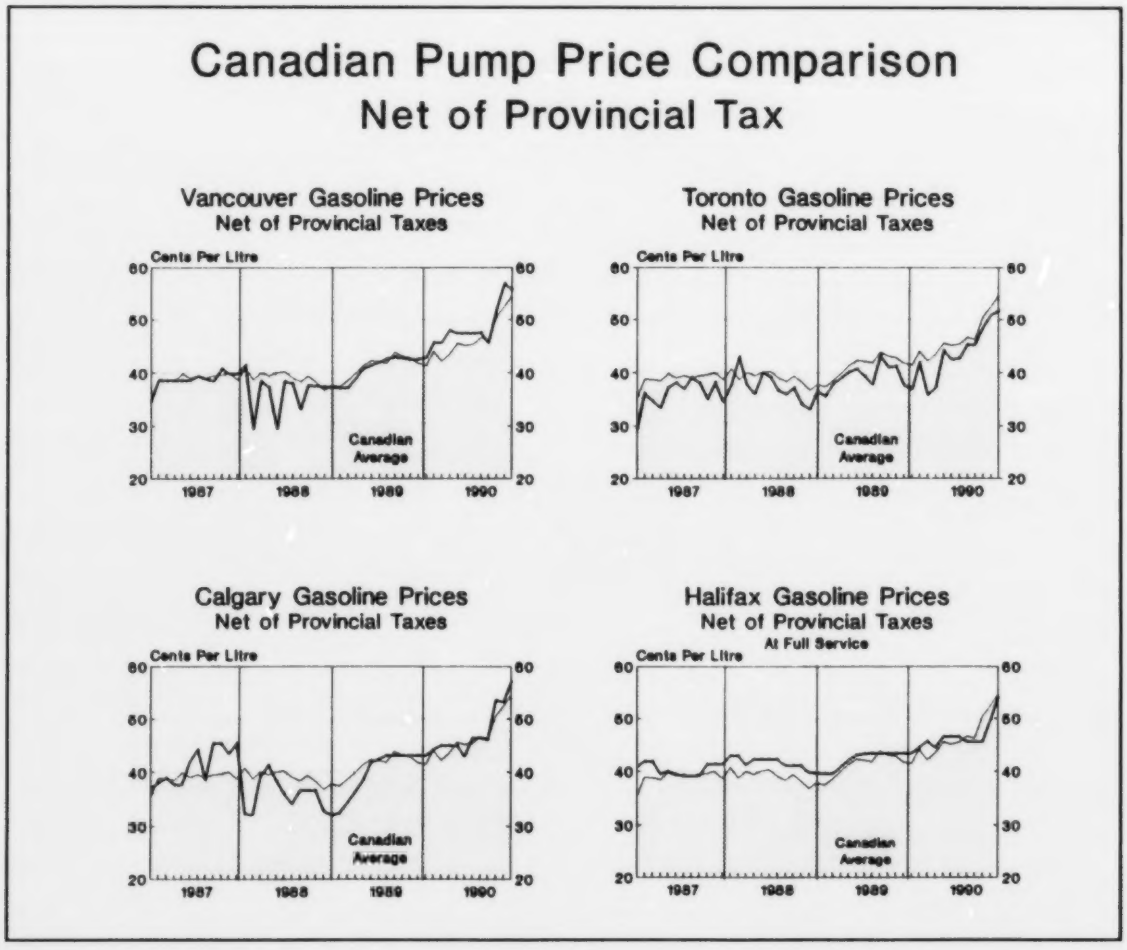
They also tend to reflect local market conditions. Some markets are characterized by competitive price wars, during which these margins are reduced for varying periods of time.

The figure below provides a one-day comparison of gasoline prices from cities across Canada.



Notice that on this particular day, the refining margins are relatively high in Vancouver and Montreal, and low in Regina.

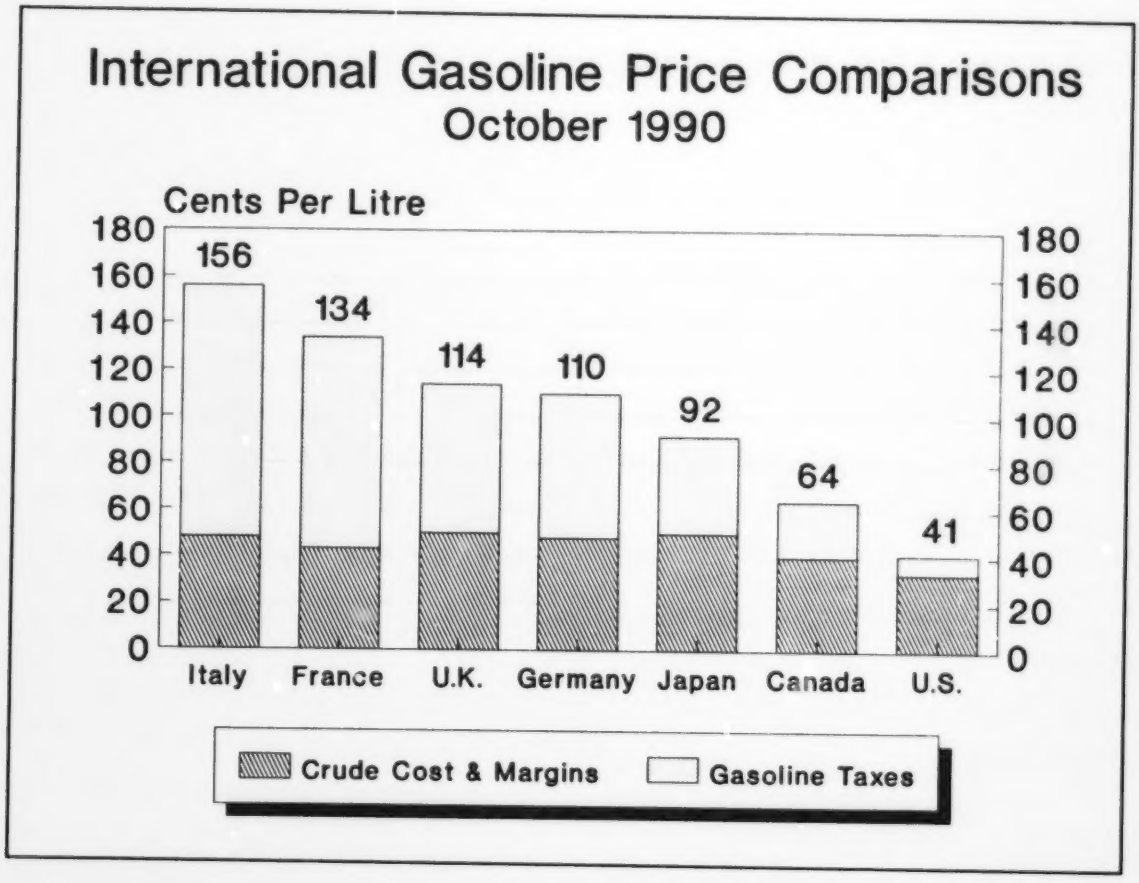
To gain a better idea of how gasoline prices have varied over time, monthly data from the beginning of 1987 for Vancouver, Calgary, Toronto and Halifax are compared against the Canadian average in the figure below. Provincial gasoline taxes have been removed to get a clearer idea of how crude costs and margins have compared over time.



Notice that Vancouver, Calgary and Toronto have all had bouts of competitive price-cutting. While price regulation in Nova Scotia tends to smooth out price fluctuations, prices appear to be higher on average than in other jurisdictions in Canada.

Question 5	How do gasoline prices in Alberta compare with those in other countries?

The figure below compares gasoline prices among a number of Canada's important trading partners for October 1990.



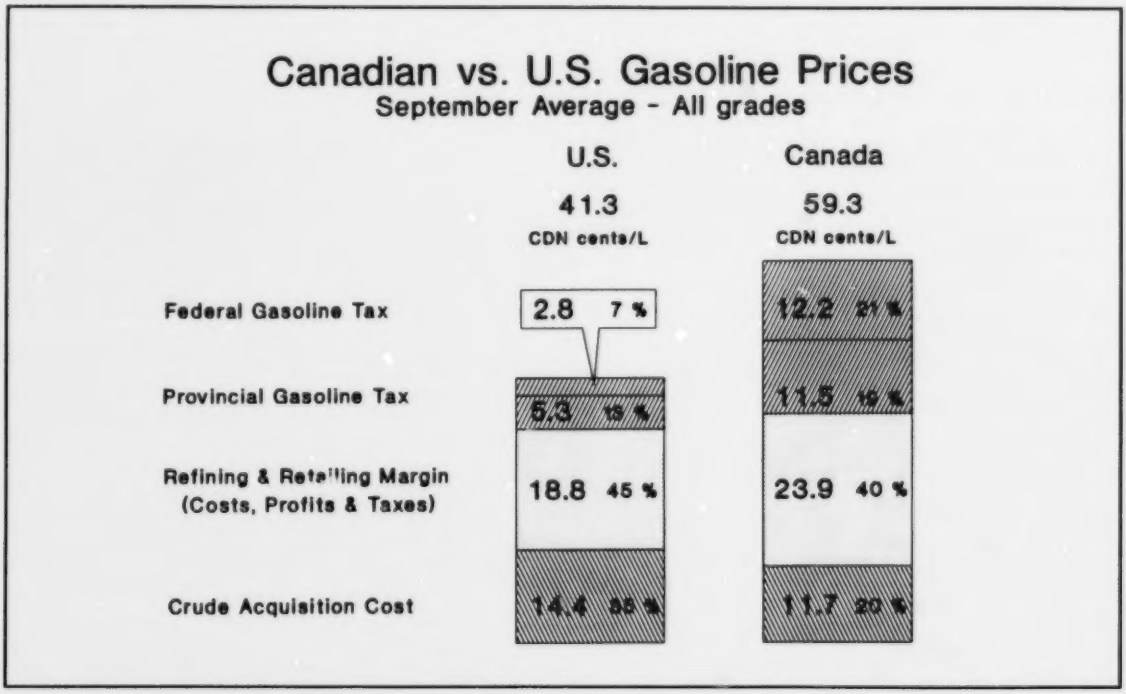
Excluding gasoline taxes, prices are all between 40 and 50 cents per litre, with the U.S being the exception at 33 cents per litre. There is, however, a big difference in the level of gasoline taxes. Canada and the US have by far the lowest gasoline taxes in the above group.

It is also interesting to note that since the beginning of the Gulf Crisis gasoline prices have increased by less than 10 cents per litre in Canada, the U.S. and Japan. In Europe, however, price increases have been much larger, ranging from 17 cents per litre in Italy to over 31 cents per litre in France.

Question 6	How do gasoline prices in Alberta compare with those in the United States?

There are a number of important differences in the way gasoline prices are determined in the United States and Canada.

The figure below provides a comparison of average Canadian and American gasoline prices for September in Canadian cents per litre..



Not surprisingly, the first difference arises over units of measure. In September, the average price of gasoline in the U.S. was reported to be $US 1.35 per US gallon. The conversion of this price to litres and Canadian funds is as follows:

$$\frac{\text{\$US 1.35 per US gal}}{\text{3.785 L per US gal}} \times \text{\$CDN 1.158 per \$US} = \text{41.3 CDN cents per L}$$

Gasoline Taxes

Federal and state gasoline taxes are considerably lower in the United States than are the corresponding federal and provincial taxes in Canada. A comparison of these taxes in Canadian cents per litre for September 1990 is as follows:

	Canadian Average	US Average	Alberta	Montana
Prov. / State	11.5	5.3	7.0	6.4
Federal	12.2	2.8 *	12.2	2.8 *
	23.7	8.1	19.2	9.2

* Beginning December 1, 1990 U.S. federal gasoline taxes increased by 1.5 cents per litre and are now 4.3 cents per litre.

Thus, gasoline taxes account for a difference of about 10 to 15 cents per litre between Canadian and U.S. prices.

Refining & Retailing Margins

On average, these margins tend to be lower in the U.S. This reflects the fact that in most regions, the refining and distributing systems are significantly larger and operate at lower costs. Refining and retail margins tend to be about 5 cents per litre higher in Canada compared to the U.S.

It is also interesting to note that there is no significant difference in the grades of gasoline that are marketed in neighbouring areas of Canada and the U.S. However, octane and additives may vary over the course of the year and from region to region due to climatic conditions.

Crude Acquisition Costs

Since both Canada and the U.S. buy and sell crude oil at world prices, there is very little difference in the cost of crude in neighbouring parts of Canada and the US.

However, significant differences can arise because the accounting convention used to value inventories in Canada and the U.S. are different. In the U.S., refiners are assumed to use the most recently purchased crude oil inventories first, and sell the most recently produced gasoline first. In Canada, refiners are assumed to use up and sell their oldest inventories first.

Thus, when the world price of crude increased at the beginning of August, this was quickly reflected at the gasoline pumps in the U.S. In Canada, prices began to increase only after the existing inventories of lower cost crude were used up. This effect appears in the figure on page 12 where crude acquisition costs are shown to be significantly higher in the U.S. by September than they were in Canada.

Question 7	How do gasoline price wars start? Are they the sign of a competitive market?

Gasoline price wars generally start because a refiner or retailer believes it can increase its share of sales in a particular market by cutting price below the level of its competitors.

Gasoline marketers work to develop a loyal following of customers, and often offer a slightly different mix of products and services at their outlets. Even small price differences, however, cause many customers to shop for the lower price. Thus, most outlets within close proximity must quickly match the price cut to prevent a loss of sales.

Most price wars end quickly once operators in an area re-adjust their prices to similar levels. In some cases, however, special circumstances allow price wars to continue for extended periods of time.

In the current situation, for example, some operators have had large stocks of gasoline that were refined from lower cost crude. By holding their prices down, they have prevented other operators from increasing prices to reflect the increase in the cost of crude.

On balance, frequent price wars are one indicator that a market is very competitive.

Question 8	Why do gasoline marketers use so many coupons? Why not just lower the price to all customers?

Gasoline marketers consider coupon offers to be an important tool for attracting new customers into their outlets. Coupons are a way of offering a significant price discount to a target group of consumers.

A "one dollar off" coupon, for example, would amount to a 4 cent per litre discount on a 25 litre fill-up.

Surprisingly, only a small proportion of gasoline is sold with coupons, and only about 15% of coupons are ever redeemed. This is why the price discount can be as high as it is. If all consumers took advantage of coupons, the discount would likely not be as large.

Question 9 **Where do crude oil revenues go?**

The Province of Alberta, holds ownership rights to over 80 per cent of oil and gas reserves located within its boundaries. Oil companies bid for the rights to look for oil, and in addition, pay the province a royalty on each barrel that is extracted. In Alberta, royalties are paid as a share of actual oil production, which the province sells. There are over 500 companies exploring for and producing oil in Alberta. This ranges from small local producers to large international producers.

An increase in world oil prices generally means that world oil demand exceeds or is expected to exceed the available supply. Higher prices serve to bring the market into balance by providing consumers with the incentive to reevaluate and economize on their fuel usage, and for producers to look for and develop additional oil reserves that were previously uneconomic.

As a result, oil producers earn higher revenues as production from existing reserves can be sold at a higher price. Government revenues also increase since the oil they receive as a royalty on oil production can also be sold at the higher prices.

While higher oil prices generally mean increased revenues for the upstream (oil production) end of the industry, they tend to have the opposite effect on the downstream (refining and marketing) portion of the industry. If refiners are unable to pass the full increase in crude costs on to consumers, refining margins and hence refining profits fall.

Some refiners who are also involved in the upstream portion of the industry might be able to offset a reduction in refining margins with increased revenues on crude oil production. It is important to note, however, that not all refiners are involved in the upstream part of the industry.

Detailed information on the financial performance of the petroleum industry is published semi-annually by the *Petroleum Monitoring Agency*. This is a federal agency established in 1980 to provide an independent and objective assessment of the industry's financial picture.

Alberta Weekly Gasoline Price Survey

Regular Unleaded Gasoline at full and self service

	Sept. 28	Oct. 5	Oct. 12	Oct. 19	Oct. 26	Nov. 5	Nov. 13	Nov. 19	Nov. 26	Dec. 3	Dec. 10
Calgary	59.5	61.2	61.2	59.0	58.4	61.1	64.1	63.9	62.5	59.7	58.1
Camrose	54.5	59.2	59.2	59.2	59.4	59.4	62.9	59.9	62.4	59.9	59.9
Edmonton	59.7	60.9	59.8	58.3	57.3	60.9	63.3	64.0	63.8	63.5	56.5
Fort McMurray	58.4	61.8	61.5	62.8	62.8	63.2	67.3	67.8	67.8	68.1	68.1
Grande Prairie	56.9	61.9	61.9	61.9	61.9	61.9	64.5	65.2	64.9	65.2	64.9
Lethbridge	56.5	61.5	61.4	60.7	60.3	60.8	64.4	64.4	64.4	64.4	64.4
Medicine Hat	56.6	62.0	61.4	61.4	61.0	62.3	64.5	64.4	63.8	64.3	64.5
Peace River	57.7	61.1	62.0	63.4	64.5	64.5	64.5	66.5	66.5	67.5	67.5
Red Deer		60.9	60.9	60.9	67.1	60.9	63.5	63.9	64.1	64.0	64.1
Weighted Average	57.5	61.2	61.0	60.8	59.0	61.1	63.9	64.1	63.5	62.4	59.0

Source: Alberta Consumer and Corporate Affairs